UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/034,068	12/27/2001	Thomas P. Fowler	2001-040-NSC	9440

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EXAMINER
INOA, MIDYS

ART UNIT	PAPER NUMBER
2188	

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/034,068	FOWLER, THOMAS P.
	Examiner	Art Unit
	Midys Inoa	2188

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _15 December 2003_.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-41_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-41_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on _27 December 2001_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _3_.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1.   The information disclosure statement (IDS) submitted on October 8th, 2003 has been

considered by the examiner.

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3.   Claims 1, 11, 21, 31, and 36 are rejected under 35 U.S.C. 112, first paragraph, as failing

to comply with the written description requirement. The claim(s) contains subject matter which

was not described in the specification in such a way as to reasonably convey to one skilled in the

relevant art that the inventor(s), at the time the application was filed, had possession of the

claimed invention. The written description does not disclose allocating storage space

permanently to the user. Applicant refers to page 6, line 12 through page 8, line 18 as support

for such limitation, however, the examiner does not find sufficient support for the limitation in

question. Additionally, in applicant's arguments reference is made to the invention's ability to

"automatically transfer a portion of such allocated storage space to free storage space in response

to user requests to increase or **decrease** the size of such allocated storage space" (Page 10,

paragraph 3). If the user has the ability to release the space allocated to it, then such allocation is

not **permanent.**

4.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5.   Claims 1, 11, 21, 31, and 36 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention. It is not understood how storage space can be **substantially**

permanently allocated to a user. If an allocation of space is permanent, it is unclear how it can

be **substantially** permanent.

Claim Rejections - 35 USC § 102

6.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed
> in the United States before the invention by the applicant for patent or (2) a patent granted on an application for
> patent by another filed in the United States before the invention by the applicant for patent, except that an
> international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this
> subsection of an application filed in the United States only if the international application designated the United
> States and was published under Article 21(2) of such treaty in the English language.

7.   Claims 1-8, 11-18, 21-28, and 31-40 are rejected under 35 U.S.C. 102(e) as being

anticipated by Feldman et al. (6,516,342).

Regarding Claims 1, 7-8, 11, 17-18, 21, 27-28, 31-33, 35-38, and 40, Feldman et al.

teaches a system in which a Network Client 14 ("user") extends its memory through the use of

an allocated memory area 22a ("allocated storage space") within a Network Server 16. The

allocated memory area could be composed of one or more hard disk ("plurality of disk storage

devices") as it is common for servers or other computer systems to be equipped with more than

one hard drive. Since the memory area 22a is allocated to the Network Client as needed, the

remainder of the memory that is not being used is free storage space. Given that the

communication between the Network Client and the Network Server is through a network

(please see Figure 2) it is understood that the Network Client is located at a site remote from the

Network Server. Feldman et al. also discloses a memory server manager 20 ("controller"),

which administers the use of the server's memory and therefore, must be involved with the

allocation of the memory area to the Network Client (Column 4, lines 7-39). Additionally, the

system of Feldman et al. allows for **Network Clients to extend their memory capability**

automatically on demand ("automatically transferring a portion of such allocated storage

space... in response to user request", Column 4, lines 58-62). Although Feldman et al. discloses

suspension of the server's interaction with the client upon the reduction of memory requirements,

it is understood that **in cases where memory requirements are always high, the interaction**

between the memory server and the client can be a permanent arrangement.

Regarding Claims 2-3, 12-13, and 22-23, Feldman et al. discloses that the memory server

manager 20 ("controller") can be run as a user application (Column 4, line 19). It is understood

that for the memory server manager to be "run" such application must be composed of some

computer software ("computer program"). Furthermore, in order for the memory server manager

to "run" it must also have access to a processor, which can process the software that it is

composed of.

Regarding Claims 4, 14, and 24, Feldman et al. also discloses a memory server manager

20 ("controller"), which administers the use of the server's memory and therefore, must be

involved with the allocation of the memory area to the Network Client (Column 4, lines 15-19).

Since this component allocates the memory that the Network Client needs, the realization that

such memory is needed acts as a request from the Network Client ("user") to the memory server

manager ("controller").

Regarding Claims 5, 15, and 25, Feldman et al. discloses that the memory server manager

20 ("controller") can be run as a user application (Column 4, line 19). It is understood that for

the memory server manager to be "run" such application must be composed of some computer

software ("computer program"). Since the memory server manager ("computer program",

"controller") is located at the Network Server along with the server memory 22a, composed of a

number of hard drives ("plurality of storage devices"), both of these components are to be found

at a remote server site.

Regarding Claims 6, 16, 26, 34, and 39, Feldman et al. teaches a virtual memory manager

18 ("storage device manager") within the Network Client which aids in the migration of data to

the remote allocated memory 22a and which logs in a memory server translation table the virtual

memory address of the client (Column 5, lines 11-30).

Claim Rejections - 35 USC § 103

8.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

9.   Claims 9-10, 19-20, and 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Feldman et al. (6,516,343).

Regarding Claims 9, 19, and 29, Feldman et al. teaches a system in which a Network

Client 14 ("user") extends its memory through the use of an allocated memory area 22a

("allocated storage space") within a Network Server 16. Given that the communication between

the Network Client and the Network Server is through a network (please see Figure 2) it is

understood that the Network Client is located at a site remote from the Network Server.

Feldman et al. also discloses a memory server manager 20 ("controller"), which administers the

use of the server's memory and therefore, must be involved with the allocation of the memory

area to the Network Client (Column 4, lines 7-39). Feldman et al. does not teach the use of the

memory server manager to decrease the amount of memory space that is allocated to the user. It

would have been obvious to one of ordinary skill in the art at the time the invention was made to

give the memory server manager the ability to decrease the amount of memory being allocated to

the Network Client since such ability would enable the system to allocate memory more

efficiently to other applications when the Network Client does not need all the memory that is

being allocated to it.

Regarding Claims 10, 20, and 30, Feldman et al. also discloses a memory server manager

20 ("controller"), which administers the use of the server's memory and therefore, must be

involved with the allocation of the memory area to the Network Client (Column 4, lines 15-19).

Since this component allocates the memory that the Network Client needs, the realization that

such memory is needed acts as a request from the Network Client ("user") to the memory server

manager ("controller").

Response to Arguments

10.   Applicant's arguments filed on December 15th, 2003 have been fully considered but they

are not persuasive. The invention of Feldman et al. allows for **Network Clients to extend their**

memory capability automatically and on demand ("automatically transferring a portion of

such allocated storage space… in response to user request"), this is why the memory server is a

dedicated machine available at all times. Although Feldman et al. discloses suspension of the

server's interaction with the client upon the reduction of memory requirements, it is understood

that **in cases where memory requirements are always high, the interaction between the**

memory server and the client can be a permanent arrangement.

Conclusion

11.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Midys Inoa whose telephone number is (703) 305-7850. The

examiner can normally be reached on M-F 7:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Mano Padmanabhan can be reached on (703) 306-2903. The fax phone number for

the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Midys Inoa
Examiner
Art Unit 2188

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